

Amendments to the Claims

Please cancel Claims 9 and 10. Please amend Claims 1-8. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently Amended) An isolated polypeptide molecule having at least about 80% identity with
 - a) SEQ ID NO[[s.]]: 2, ~~4, 6, 8, 10, or 12~~; or
 - b) an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO: 1, ~~3, 5, 7, 9, or 11~~;wherein the isolated polypeptide molecule allows fish to sense Ca²⁺, Mg²⁺, or Na⁺ ion concentrations.
2. (Currently Amended) An isolated polypeptide molecule having at least about 90% identity with
 - a) SEQ ID NO[[s.]]: 2, ~~4, 6, 8, 10, or 12~~; or
 - b) an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO: 1, ~~3, 5, 7, 9, or 11~~;wherein the isolated polypeptide molecule allows fish to sense Ca²⁺, Mg²⁺, or Na⁺ ion concentrations.
3. (Currently Amended) An isolated polypeptide molecule having at least about 80% identity with
 - a) SEQ ID NO[[s.]]: 2, ~~4, 6, 8, 10, or 12~~; or
 - b) an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO: 1, ~~3, 5, 7, 9, or 11~~;wherein the isolated polypeptide molecule assists fish in adapting to changing Ca²⁺, Mg²⁺, or Na⁺ ion concentrations by altering water intake, water absorption or urine output.

4. (Currently Amended) An isolated polypeptide molecule having at least about 90% identity with
- a) SEQ ID NO[[s.]]: ~~2, 4, 6, 8, 10, or 12~~; or
 - b) an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO: 1 ~~, 3, 5, 7, 9, or 11~~;
- wherein the isolated polypeptide molecule assists fish in adapting to changing Ca²⁺, Mg²⁺, or Na⁺ ion concentrations by altering water intake, water absorption or urine output.
5. (Currently Amended) An isolated polypeptide molecule having at least about 80% identity with
- a) SEQ ID NO[[s.]]: ~~2, 4, 6, 8, 10, or 12~~; or
 - b) an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO: 1 ~~, 3, 5, 7, 9, or 11~~;
- wherein the isolated polypeptide molecule allows a fish to modulate the percentage of total fat, protein and moisture of muscle and allows fish to sense or adapt to Ca²⁺, Mg²⁺, or Na⁺ ion concentrations.
6. (Currently Amended) An isolated polypeptide molecule having at least about 90% identity with
- a) SEQ ID NO[[s.]]: ~~2, 4, 6, 8, 10, or 12~~; or
 - b) an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO: 1 ~~, 3, 5, 7, 9, or 11~~;
- wherein the isolated polypeptide molecule allows a fish to modulate the percentage of total fat, protein and moisture of muscle and allows fish to sense or adapt to Ca²⁺, Mg²⁺, or Na⁺ ion concentrations.
7. (Currently Amended) An isolated polypeptide molecule having an amino acid sequence that comprises:
- a) SEQ ID NO[[s.]]: ~~2, 4, 6, 8, 10, or 12~~; or
 - b) an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO: 1

~~, 3, 5, 7, 9, or 11;~~

wherein the isolated polypeptide molecule allows fish to sense or adapt to Ca^{2+} , Mg^{2+} , or Na^{+} ion concentrations.

8. (Currently Amended) An isolated polypeptide encoded by a nucleic acid sequence of polypeptide purified from a clone deposited under ATCC No.: 209602, wherein the isolated polypeptide molecule allows fish to sense or adapt to Ca^{2+} , Mg^{2+} , or Na^{+} ion concentrations.

9. (Cancelled)

10. (Cancelled)